

**AIR PERMIT BRIEFING SHEET**  
**AIR PERMITS DIVISION**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Chlor-Alkali Plant**  
**Agency Interest No.: 2644**  
**Pioneer Americas LLC**  
**St. Gabriel, Iberville Parish, Louisiana**

**I. BACKGROUND**

Pioneer Americas LLC operates an existing Chlor-Alkali plant in St. Gabriel, Iberville Parish. The facility was first permitted as Stauffer Chemical on April 16, 1971. In 1988, ownership changed to Pioneer Chlor Alkali Company. In March 2004, the company changed its name to Pioneer Americas LLC. The Chlor-Alkali Plant currently operates under Permit No. 1280-00011-02, issued October 12, 1998, and the small source exemption issued March 5, 2004.

**II. ORIGIN**

A permit application and Emission Inventory Questionnaire (EIQ) dated December 15, 2006 and a revised application and EIQ dated January 18, 2007 were received requesting a permit modification. Additional information dated February 2, 2007; February 14, 2007; February 25, 2007; March 7, 2007; March 16, 2007; March 22, 2007; and March 23, 2007 was also received.

**III. DESCRIPTION**

Pioneer Americas, LLC's chlor-alkali facility uses mercury cell technology to produce chlorine, sodium hydroxide, and hydrogen. In this process, purified saturated brine solution is electrolyzed to produce chlorine and sodium. The sodium dissolves in a liquid mercury cathode, forming a sodium/mercury amalgam which is reacted with water to produce 50% sodium hydroxide (NAOH) and hydrogen.

Chlorine leaving the cells is cooled, dried, compressed, and liquefied before shipment to customers by pipeline and tank cars. The NaOH is cooled and filtered before being sold. The hydrogen is cooled, compressed, and used as fuel in the boilers or shipped to customers by pipeline. Excess hydrogen is vented.

Mercury emissions from the cells are reduced by a demister and a sulfur impregnated carbon bed before exiting through the Outlet Endbox Vent (EPN 1-78). Sulfur-impregnated carbon bed control mercury emissions for the Hydrogen Processing Equipment Vent (EPN 2-78).

Two wet scrubbers have been installed to reduce chlorine emissions. The "B" Scrubber (EPN 12-95) is installed near the existing tail gas neutralizer ("A" Scrubber, EPN 3-78) and provides additional capacity for the system. The REMERC Neutralizer (EPN 13-95) was added to control chlorine emissions generated by the mercury recovery system at the wastewater treatment facility.

Emissions are primarily due to petroleum storage, chlorine production, raw material handling, fuel combustion, fugitive emissions, and the cooling towers.

**AIR PERMIT BRIEFING SHEET**  
**AIR PERMITS DIVISION**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Chlor-Alkali Plant**  
**Agency Interest No.: 2644**  
**Pioneer Americas LLC**  
**St. Gabriel, Iberville Parish, Louisiana**

This permit modification incorporates the following changes from the previous permit:

1. Emissions calculations for the two boilers (EPNs 5-78 and 6-78) have been updated to more accurately reflect facility operations.
2. The new sulfur-impregnated non-regenerable carbon beds on the Outlet Endbox Vent (EPN 1-78) approved by the Department in an Authorization to Construct issued September 13, 2005 have been incorporated into the permit.
3. A third polishing carbon bed installed on the hydrogen processing ventilation stream vent (EPN 2-78) approved by the Department in an Authorization to Construct issued September 13, 2005 has been incorporated into the permit.
4. Calculations for the following emission points have been revised to reflect new test data: "A" Scrubber Vent Gas (EPN 3-78); "B" Scrubber Vent Gas (EPN 12-95); and REMERC Neutralizer Vent Gas (EPN 13-95).
5. Calculations for the following emission points have been revised to reflect new sampling data: Process Cooling Tower (14-95); Process Cooling Tower "B" (15-95); and Process Cooling Tower "C" (16-95).
6. Calculations for Diesel Storage Tank T-819 (EPN 11-78A) have been updated.
7. The following existing emission points have been added to the permit: Hydrogen Compressor System (EPN BL-610); Emergency Generator Diesel Engine (EPN E-183); Stormwater Lagoon Pump Engine (EPN E-740 B); Firewater Diesel Pump Engine (EPN E-814); Maintenance Activity – FRP Fabrication and Repair (EPN FRP FAB); Hydrogen Purification System (EPN H2 PURIF); Gasoline Tank at Garage (EPN T-810); and Diesel Storage Tank (EPN T-819B).
8. Two gasoline storage tanks (EPN 11-78B and 11-78C) previously permitted have been removed from the permit.
9. A list of General Condition XVII Activities has been added to the permit.
10. A list of Insignificant Activities has been added to the permit.
11. Fuel oil operating time for Boilers "A" and "C" (EPN 5-78 and 6-78) is being limited to less than 500 hours per year for each boiler.
12. Fuel oil burning during ozone season is being limited to 282 gallons per hour.

**AIR PERMIT BRIEFING SHEET  
AIR PERMITS DIVISION  
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Chlor-Alkali Plant  
Agency Interest No.: 2644  
Pioneer Americas LLC  
St. Gabriel, Iberville Parish, Louisiana**

Estimated emissions from this facility in tons per year are as follows:

Pollutant	Before	After	Change
PM <sub>10</sub>	47.32	49.03	+ 1.71
SO <sub>2</sub>	93.40	11.02	- 82.38
NO <sub>x</sub>	52.65	42.71	- 9.94
CO	13.16	3.47	- 9.69
VOC <sup>1</sup>	1.30	4.35	+ 3.05
Mercury	0.64	0.612	- 0.028
Chlorine	0.99	0.53	- 0.46

<sup>1</sup>VOC speciation in tons per year:

LAC 33:III. Chapter 51 Toxic Air Pollutants TAP's	Emissions in Tons per year
Methyl Ethyl Ketone	1.47
Styrene	0.52
Total TAP's	1.99
Other VOC's	2.36
Total VOC	4.35

#### IV. TYPE OF REVIEW

This permit was reviewed for compliance with Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) does not apply.

The Chlor-Alkali Plant is an area source subject to 40 CFR 63 Subpart IIIII (National Emission Standards for Hazardous Air Pollutants: Mercury Emissions from Mercury Cell Chlor-Alkali Plants). Boiler "A" (EPN 5-78) is subject to NSPS Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

This facility is a minor source of LAC 33:III.Chapter 51 Toxic Air Pollutants (TAPs).

**AIR PERMIT BRIEFING SHEET  
AIR PERMITS DIVISION  
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Chlor-Alkali Plant  
Agency Interest No.: 2644  
Pioneer Americas LLC  
St. Gabriel, Iberville Parish, Louisiana**

**V. PUBLIC NOTICE**

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, on <date>, 2007; and in the <local paper>, <local town>, on <date>, 2007. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on <date>. All comments will be considered prior to the final permit decision.

**VI. EFFECTS ON AMBIENT AIR**

Dispersion Model(s) Used: ISCST3

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Ambient Air Quality Standard (NAAQS)
Mercury	8-hour	0.43 µg/m <sup>3</sup>	1.19 µg/m <sup>3</sup>

**VII. GENERAL CONDITION XVII ACTIVITIES**

Work Activity	Schedule	Emission Rates - tons						Cl	Hg
		PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC			
Chlorine Pump Replacement	5/year						1.57E-7		
Depleted Brine Pump Replacement	Semi-annually						5.40E-5		
Changing Hg or Oil Removal	Annually							1.90E-7	
Pressure Gauge (Chlorine Service) Removal	Weekly						3.65E-5		
Instrument (Chlorine Service) Removal	Semi-weekly						9.30E-10		
REMERC Sump Cleaning	3/year							1.50E-8	
Blowing Down Hydrogen Line	Quarterly							9.00E-6	
Emptying Hydrogen Pipeline of Hydrogen	Annually							1.25E-7	
Pipe (Chlorine Service) Removal	3/year						1.57E-7		

**AIR PERMIT BRIEFING SHEET**  
**AIR PERMITS DIVISION**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Chlor-Alkali Plant**  
**Agency Interest No.: 2644**  
**Pioneer Americas LLC**  
**St. Gabriel, Iberville Parish, Louisiana**

Caustic Filter Backwash Tank Draining	Semi- annually	1.23E-6
IR Compressor Maintenance	20/year	9.50E-6
Valve (Chlorine Service) Removal	Semi- weekly	4.05E-9
Purging IR Compressor	20/year	2.38E-7
Purging IR Purification Skid	20/year	2.50E-7
Purging Pura-Siv Vessels	Annually	2.95E-7
Purging of Piping Between Pura-Siv and IR	Annually	7.75E-9
Cleaning and Repacking Iron-Packed Column Sump	Bi- monthly	2.53E-9
Transfer Hg (Cementation Pot to Cell House Storage)	75/year	2.08E-8
Transfer Hg (Cell House to T-106) via REMERC Recycle Pot	61/year	5.10E-8
Draining Hg Catch Pots	Daily	3.05E-7

### VIII. INSIGNIFICANT ACTIVITIES

ID No.:	Description	Citation
T-815	Firewater Diesel Tank – 225 gallons	LAC 33:III.501.B.5.A.2
	Strong Acid Cooler Glycol Tank – 700 gallons	LAC 33:III.501.B.5.A.3
T-740A	Stormwater Lagoon Diesel Tank (West) – 550 gallons	LAC 33:III.501.B.5.A.3
T-740B	Stormwater Lagoon Diesel Tank (East) – 550 gallons	LAC 33:III.501.B.5.A.3
T-808	North Well Diesel Fuel Tank – 280 gallons	LAC 33:III.501.B.5.A.3
	REMERC Hypo Storage Tank – 1000 gallons	LAC 33:III.501.B.5.B.40
	3% Nash Tank – 420 gallons	LAC 33:III.501.B.5.B.8

**AIR PERMIT BRIEFING SHEET**  
**AIR PERMITS DIVISION**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Chlor-Alkali Plant**  
**Agency Interest No.: 2644**  
**Pioneer Americas LLC**  
**St. Gabriel, Iberville Parish, Louisiana**

	45% Nash Tank – 7500 gallons	LAC 33:III.501.B.5.B.8
	Sodium Bisulfate Tank – 1000 gallons	LAC 33:III.501.B.5.B.8
T-183	Emergency Generator Diesel Tank – 225 gallons	LAC 33:III.501.B.5.A.2

**LOUISIANA AIR EMISSION PERMIT  
GENERAL CONDITIONS**

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated December 15, 2006 and revised January 18, 2007, along with supplemental information dated February 2, 2007; February 14, 2007; February 25, 2007; March 7, 2007; March 16, 2007; March 22, 2007; and March 23, 2007.
- IV. This permit shall become invalid, for the sources not constructed, if:
  - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
  - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.

The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.

This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.
- V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.
- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

**LOUISIANA AIR EMISSION PERMIT  
GENERAL CONDITIONS**

- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Enforcement Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Enforcement Division with a written report as specified below.
- A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
  - B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
  - C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
    1. Report by June 30 to cover January through March
    2. Report by September 30 to cover April through June
    3. Report by December 31 to cover July through September
    4. Report by March 31 to cover October through December

**LOUISIANA AIR EMISSION PERMIT  
GENERAL CONDITIONS**

- D. Each report submitted in accordance with this condition shall contain the following information:
1. Description of noncomplying emission(s);
  2. Cause of noncompliance;
  3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
  4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
  5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.
- E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.
- XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:
- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
  - B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
  - C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
  - D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.
- XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.
- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

**LOUISIANA AIR EMISSION PERMIT  
GENERAL CONDITIONS**

- XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services, Air Permits Division, within ninety (90) days after the event, to amend this permit.
- XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:
1. Generally be less than 5 TPY
  2. Be less than the minimum emission rate (MER)
  3. Be scheduled daily, weekly, monthly, etc., or
  4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]

These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.

- XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:

Attention: Office of the Secretary, Legal Services Division  
La. Dept. of Environmental Quality  
Post Office Box 4302  
Baton Rouge, Louisiana 70821-4302

- XIX. Certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

**General Information**

**AI ID: 2644 Pioneer Americas LLC - St Gabriel Facility**  
**Activity Number: PER20060004**  
**Permit Number: 1280-00011-03**  
**Air - Minor Source/Small Source Mod**

ID	Name	User Group	Start Date
1280-00011	Pioneer Americas LLC - St Gabriel Facility	CDS Number	01-01-2000
1280-00050	Pioneer Americas LLC - St Gabriel Facility	Emission Inventory	03-03-2004
51-0302028	Federal Tax ID	Federal Tax ID	11-20-1999
6330096-001	Tax Exempt No	Federal Tax ID	11-20-1999
LAD062666540	Pioneer Americas LLC	Hazardous Waste Notification	10-25-1988
PC	GPRA Baselines	Hazardous Waste Permitting	10-01-1997
00862	Pioneer Chlor Alkali	Inactive & Abandoned Sites	11-23-1999
LAD062666540	Stauffer Chemical Co St Gabriel	Inactive & Abandoned Sites	11-23-1999
LA0005231	WPC File Number	LPDES Permit #	05-22-2003
WP0757	WPC State Permit Number	LWDPS Permit #	06-25-2003
	Pioneer Americas Inc - Industrial Chemical Div St Gabriel Installation	Multimedia	01-24-2002
G-047-2028	Priority 1 Emergency Site	Priority 1 Emergency Site	07-18-2006
47889	Site Id #	Solid Waste Facility No.	11-21-1999
84350	Stauffer Chemical Co	TEMPO Merge	11-29-2006
70776STFFRIVER	Pioneer Americas Inc	TEMPO Merge	10-25-2000
	TRI #	Toxic Release Inventory	07-14-2004

**Physical Location:** 4205 Hwy 75  
 St. Gabriel, LA 70776  
**Main FAX:** 5046421882  
**Main Phone:** 2256421800

**Mailing Address:** PO Box 23  
 St. Gabriel, LA 707760023

**Location of Front Gate:** 30° 14' 26" latitude, 91° 6' 25" longitude, Coordinate Method: Interpolation - Map, Coordinate Datum: NAD83

Name	Mailing Address	Phone (Type)	Relationship
Benny Bennett	PO Box 23 St. Gabriel, LA 707760023	2256421800 (WP)	Water Billing Party for
Benny Bennett	PO Box 23 St. Gabriel, LA 707760023	2256421882 (WF)	Water Billing Party for
Dana Oliver	PO Box 23 St Gabriel, LA 707760023	2256421863 (WP)	Accident Prevention Contact for
Dana Oliver	PO Box 23 St Gabriel, LA 707760023	2256421863 (WP)	Accident Prevention Billing Party for
Regina Wilson	PO Box 23 St. Gabriel, LA 707760023	2256421863 (WP)	Water Permit Contact For
Regina Wilson	PO Box 23 St. Gabriel, LA 707760023	2256421863 (WP)	Hazardous Waste Permit Contact For

Name	Address	Phone (Type)	Relationship
Pioneer Americas LLC	PO Box 23 St. Gabriel, LA 707760023		Air Billing Party for
Pioneer Americas LLC	PO Box 23 St. Gabriel, LA 707760023		Owns

General Information

AI ID: 2644 Pioneer Americas LLC - St Gabriel Facility

Activity Number: PER20060004

Permit Number: 1280-00011-03

Air - Minor Source/Small Source Mod

Related Organizations:	Name	Address	Phone (Type)	Relationship
	Pioneer Americas LLC	PO Box 23 St. Gabriel, LA 707760023		Haz. Waste Billing Party for
	Pioneer Americas LLC	PO Box 23 St. Gabriel, LA 707760023		Operates

SIC Codes: 2812, Alkalies and chlorine

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Mr. David Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to [facupdate@la.gov](mailto:facupdate@la.gov).

**INVENTORIES**

AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility  
 Activity Number: PER20060004  
 Permit Number: 1280-00011-03  
 Air - Minor Source/Small Source Mod

Subject Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
EQT001	3-78 - "A" Scrubber Vent Gas		3960 ft <sup>3</sup> /min (actual)	3300 ft <sup>3</sup> /min (actual)		8760 hr/yr (All Year)
EQT002	5-78 - Boiler "A" Flue Gas (40 MM Btu/hr)		36000 lb/hr	30000 lb/hr		8760 hr/yr (All Year)
EQT003	6-78 - Boiler "C" Flue Gas (40 MM Btu/hr)		36000 lb/hr	30000 lb/hr		8760 hr/yr (All Year)
EQT004	8-78 - Sodium Chloride Handling		250 tons/hr	350000 tons/yr		2080 hr/yr (All Year)
EQT005	11-78A - Diesel Storage Tank, T-819	153000 gallons	2.63 MM gallons/yr	2.63 MM gallons/yr		8760 hr/yr (All Year)
EQT006	12-95 - "B" Scrubber Vent Gas		3960 ft <sup>3</sup> /min (actual)	3300 ft <sup>3</sup> /min (actual)		8760 hr/yr (All Year)
EQT008	14-95 - Process Cooling Tower "B"		13000 gallons/min	12500 gallons/min		8760 hr/yr (All Year)
EQT009	15-96 - Process Cooling Tower "B"		2400 gallons/min	1000 gallons/min		8760 hr/yr (All Year)
EQT010	16-96 - Process Cooling Tower "C"		7200 gallons/min	3000 gallons/min		8760 hr/yr (All Year)
EQT012	E-183 - Emergency Generator Diesel Engine		1200 horsepower	1200 horsepower		500 hr/yr (All Year)
EQT013	E-740B - Stormwater Lagoon Pump Engine		250 horsepower	250 horsepower		500 hr/yr (All Year)
EQT014	E-805C - Well Water Diesel Pump Engine		150 horsepower	150 horsepower		500 hr/yr (All Year)
EQT015	E-814 - Firewater Diesel Pump Engine		300 horsepower	300 horsepower		500 hr/yr (All Year)
EQT017	T-810 - Gasoline Tank at Garage	550 gallons		2200 gallons/yr		8760 hr/yr (All Year)
EQT018	T-819B - Diesel Storage Tank	20000 gallons		2.6 MM gallons/yr		8760 hr/yr (All Year)
FUG001	FRP FAB - Maint Activity-FRP Fabrication and Repair		4000 lb/yr	4000 lb/yr	resin usage	2080 hr/yr (All Year)
FUG002	BL-610 - Hydrogen Compressor System		36 ft <sup>3</sup> /min	30 ft <sup>3</sup> /min		8760 hr/yr (All Year)
FUG003	7-78 Mercury Cell House Fugitives		1.16 ft <sup>3</sup> /min	1.16 ft <sup>3</sup> /min		8760 hr/yr (All Year)
RLP005	1-78 - Outlet Endbox Vent			2339 ft <sup>3</sup> /min (actual)		8760 hr/yr (All Year)
RLP006	2-78 - Hydrogen Processing Equipment Vent			3487 ft <sup>3</sup> /min (actual)		200 hr/yr (All Year)
RLP008	13-95 - REMERC Neutralizer Vent Gas		340 ft <sup>3</sup> /min	283 ft <sup>3</sup> /min		8760 hr/yr (All Year)
RLP009	H2 PURIF - Hydrogen Purification System		930 (other units)	930 (other units)	based on events/yr	8760 hr/yr (All Year)

Subject Item Groups:

ID	Description	Included Components (from Above)
GRP002	Entire Facility	EQT1 3-78 - "A" Scrubber Vent Gas
GRP002	Entire Facility	EQT2 5-78 - Boiler "A" Flue Gas (40 MM Btu/hr)
GRP002	Entire Facility	EQT3 6-78 - Boiler "C" Flue Gas (40 MM Btu/hr)
GRP002	Entire Facility	EQT4 8-78 - Sodium Chloride Handling
GRP002	Entire Facility	EQT5 11-78A - Diesel Storage Tank, T-819
GRP002	Entire Facility	EQT6 12-95 - "B" Scrubber Vent Gas
GRP002	Entire Facility	EQT8 14-95 - Process Cooling Tower
GRP002	Entire Facility	EQT9 15-96 - Process Cooling Tower "B"
GRP002	Entire Facility	EQT10 16-96 - Process Cooling Tower "C"
GRP002	Entire Facility	EQT12 E-183 - Emergency Generator Diesel Engine
GRP002	Entire Facility	EQT13 E-740B - Stormwater Lagoon Pump Engine

**INVENTORIES**

AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility

Activity Number: PER20060004

Permit Number: 1280-00011-03

Air - Minor Source/Small Source Mod

**Subject Item Groups:**

ID	Description	Included Components (from Above)
GRP002	Entire Facility	EQT14 E-805C - Well Water Diesel Pump Engine
GRP002	Entire Facility	EQT15 E-814 - Firewater Diesel Pump Engine
GRP002	Entire Facility	EQT17 T-810 - Gasoline Tank at Garage
GRP002	Entire Facility	EQT18 T-819B - Diesel Storage Tank
GRP002	Entire Facility	FUG1 FRP FAB - Maint Activity-FRP Fabrication and Repair
GRP002	Entire Facility	FUG2 BL-610 - Hydrogen Compressor System
GRP002	Entire Facility	FUG3 7-78 Mercury Cell House Fugitives
GRP002	Entire Facility	RLP5 1-78 - Outlet Endbox Vent
GRP002	Entire Facility	RLP6 2-78 - Hydrogen Processing Equipment Vent
GRP002	Entire Facility	RLP8 13-95 - REMERC Neutralizer Vent Gas
GRP002	Entire Facility	RLP9 H2 PURIF - Hydrogen Purification System

**Relationships:**

**Stack Information:**

ID	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (oF)
EQT001	25	3300	1.67		53	140
EQT002	30	12600	3		36	540
EQT003	3420		2.1		36	540
EQT005					24	
EQT006	25	3300	1.67		53	140
EQT008						90
EQT009						90
EQT010			1		13	875
EQT012			.5		10.5	
EQT013			.3		7	875
EQT014			.33		8.25	875
EQT015						
EQT017					24	
EQT018			.17		30	130
FUG002		30			148	
FUG003						
RLP005	27	2339	1.17		50	175
RLP006	54	3487	1.17		73	100
RLP008	6	283	1		36	92
RLP009			.13		30	

**INVENTORIES**

**AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility**  
**Activity Number: PER20060004**  
**Permit Number: 1280-00011-03**  
**Air - Minor Source/Small Source Mod**

**Fee Information:**

Subj Item Id	Multiplier	Units Of Measure	Fee Desc
GRP002	408.8	MM Lb/Yr	0420 - Caustic/Chlorine (Rated Capacity)

**EMISSION RATES FOR CRITERIA POLLUTANTS**

AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility  
 Activity Number: PER20060004  
 Permit Number: 1280-00011-03  
 Air - Minor Source/Small Source Mod

**All phases**

Subject Item	PM <sub>10</sub>			SO <sub>2</sub>			NOx			CO			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 002 5-78	0.21	0.57	0.94	1.08	20.29	4.73	3.45	5.65	15.12	0.07	1.41	0.32	0.14	0.17	0.60
EQT 003 6-78	0.21	0.57	0.93	1.08	20.29	4.72	3.42	5.65	14.96	0.07	1.41	0.32	0.14	0.17	0.59
EQT 004 8-78	33.65	50.00	35.00												
EQT 005 11-78A													0.01	0.50	0.05
EQT 008 14-96	2.23	3.25	9.77												
EQT 009 15-96	0.10	0.34	0.45												
EQT 010 16-96	0.31	1.03	1.34												
EQT 012 E-183	0.84	1.01	0.21	4.85	5.82	1.21	28.80	34.56	7.20	6.60	7.92	1.65	0.85	1.02	0.21
EQT 013 E-7408	0.55	0.66	0.14	0.51	0.62	0.13	7.75	9.30	1.94	1.67	2.00	0.42	0.63	0.75	0.16
EQT 014 E-805C	0.33	0.40	0.08	0.31	0.37	0.08	4.65	5.58	1.16	1.00	1.20	0.25	0.38	0.45	0.09
EQT 015 E-814	0.66	0.79	0.17	0.62	0.74	0.15	9.30	11.16	2.33	2.00	2.41	0.50	0.75	0.91	0.19
EQT 017 T-810													0.10	6.52	0.45
EQT 018 T-8198													<	0.01	0.02
FUG 001 FRP FAB													1.91	72.38	1.99

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals

Permit Phase Totals:

PM10: 49.03 tons/yr  
 SO2: 11.02 tons/yr  
 NOx: 42.71 tons/yr  
 CO: 3.47 tons/yr

**EMISSION RATES FOR CRITERIA POLLUTANTS**

AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility  
Activity Number: PER20060004  
Permit Number: 1280-00011-03  
Air - Minor Source/Small Source Mod

**All phases**

VOC: 4.35 tons/yr

Emission rates Notes:

**EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS**

AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility  
 Activity Number: PER20060004  
 Permit Number: 1280-00011-03  
 Air - Minor Source/Small Source Mod

**All phases**

Subject Item	Chlorine			Mercury (and compounds)			Methyl ethyl ketone			Styrene		
	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year	Avg lb/hr	Max lb/hr	Tons/Year
EQT 001 3-78	0.01	0.01	0.04									
EQT 002 5-78				0.001	0.001	0.004						
EQT 003 6-78				0.001	0.001	0.004						
EQT 006 12-95	0.01	0.01	0.04									
FUG 001 FRP FAB							1.41	50.00	1.47	0.50	22.38	0.52
FUG 002 BL-610				< 0.001	< 0.001	< 0.001						
FUG 003 7-78	0.09	0.88	0.41	0.137	0.207	0.600						
RLP 005 1-78	0.01	0.01	0.04	< 0.001	< 0.001	0.002						
RLP 006 2-78				0.001	0.001	< 0.001						
RLP 008 13-95	< 0.01	< 0.01	< 0.01	< 0.001	< 0.001	< 0.001						
RLP 009 H2 PURIF				< 0.001	< 0.001	< 0.001						

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals

**Permit Parameter Totals:**

Chlorine: 0.53 tons/yr  
 Mercury (and compounds): 0.612 tons/yr  
 Methyl ethyl ketone: 1.47 tons/yr  
 Styrene: 0.52 tons/yr

**Emission Rates Notes:**

**SPECIFIC REQUIREMENTS**

**AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility**  
**Activity Number: PER20060004**  
**Permit Number: 1280-00011-03**  
**Air - Minor Source/Small Source Mod**

**EQT001     3-78 - "A" Scrubber Vent Gas**

- 1 pH monitored by pH instrument once every four hours. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: None specified
- 2 pH recordkeeping by electronic or hard copy once every four hours. [LAC 33:III.501.C.6]
- 3 Flow rate monitored by flow rate monitoring device once every four hours. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: None specified
- 4 Flow rate recordkeeping by electronic or hard copy once every four hours. [LAC 33:III.501.C.6]
- 5 Submit report: Due annually, by the 31st of March for the preceding calendar year. List the hours that the scrubber operated out of the ranges specified. Submit report to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]
- 6 Flow rate >= 500 gallons/min. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: None specified
- 7 pH >= 10.5 s.u. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: None specified

**EQT002     5-78 - Boiler "A" Flue Gas (40 MM Btu/hr)**

- 8 Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]  
 Which Months: All Year    Statistical Basis: None specified
- 9 Total suspended particulate <= 0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]  
 Which Months: All Year    Statistical Basis: None specified
- 10 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]
- 11 Fuel oil Operating time <= 500 hr/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if fuel oil operating time exceeds the maximum listed in this specific condition for any twelve consecutive month period. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: None specified
- 12 During the ozone season, fuel oil Feed rate (surrogate for heat input) monitored by technically sound method continuously. [LAC 33:III.501.C.6]  
 Which Months: May-Sep    Statistical Basis: None specified
- 13 Fuel Oil Operating time recordkeeping by electronic or hard copy monthly. Keep records of the total hours the boiler burns fuel oil each month, as well as the hours the boiler burns fuel oil for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]
- 14 Submit report: Due annually, by the 31st of March. Report the hours of fuel oil usage and the hourly feed rate of fuel oil (during the ozone season) for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]
- 15 When burning fuel oil during the ozone season (May 1 - September 30), heat input < 40 MM BTU/hr. Ensure compliance with this requirement by limiting the feed rate of fuel oil to less than 282 gal/hr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if fuel oil feed rate exceeds the maximum listed in this specific condition. [LAC 33:III.501.C.6]  
 Which Months: May-Sep    Statistical Basis: Maximum
- 16 During the ozone season, fuel oil Feed rate recordkeeping by electronic or hard copy continuously. Keep records of the fuel oil feed rate hourly, as well as the hourly feed rate of fuel oil during the entire ozone season. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]
- 17 Fuel oil Operating time monitored by technically sound method continuously. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: None specified

**SPECIFIC REQUIREMENTS**

AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility

Activity Number: PER20060004

Permit Number: 1280-00011-03

Air - Minor Source/Small Source Mod

**EQT002 5-78 - Boiler "A" Flue Gas (40 MM Btu/hr)**

- 18 Fuel sulfur content  $\leq$  0.5 % by weight. Comply with this limitation at all times, including periods of startup, shutdown, and malfunction. Subpart Dc. [40 CFR 60.42c(d)]  
Which Months: All Year Statistical Basis: None specified
- 19 Sulfur dioxide  $\leq$  0.50 lb/MMBTU. Comply with this limitation at all times, including periods of startup, shutdown, and malfunction. Subpart Dc. [40 CFR 60.42c(e)(2)]  
Which Months: All Year Statistical Basis: Thirty-day rolling average
- 20 Opacity  $\leq$  20 percent, except for one 6-minute period per hour of not more than 27% opacity. Comply with this limitation at all times, excluding periods of startup, shutdown, and malfunction. Subpart Dc. [40 CFR 60.43c(c)]  
Which Months: All Year Statistical Basis: Six-minute average
- 21 Submit notification: Due as specified in 40 CFR 60.7. Submit the date of construction or reconstruction, anticipated startup, and actual startup. Include the information specified in 40 CFR 60.48c(a)(1) through (a)(4) as applicable. Subpart Dc. [40 CFR 60.48c(a)]
- 22 Submit reports: Due semiannually, by the 30th day following the end of the reporting period. Submit reports as required in 40 CFR 60.48c(d). Include the information specified in 40 CFR 60.48c(e)(1) through (e)(11). Subpart Dc. [40 CFR 60.48c(e)]
- 23 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 60.48c(e)(1) through (e)(11). Subpart Dc. [40 CFR 60.48c(e)]
- 24 Include in the fuel supplier certification required in 40 CFR 60.48c(e)(1) the information specified in 40 CFR 60.48c(f)(1) through (f)(3). Subpart Dc. [40 CFR 60.48c(f)]
- 25 Fuel rate recordkeeping by electronic or hard copy daily. Keep records of the amount of each fuel combusted during each day. If only very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 0.32 lb/MMBtu (140 ng/J) heat input or less is burnt, keep records of the fuels combusted during each calendar month. Subpart Dc. [40 CFR 60.48c(g)]
- 26 Maintain all records required under 40 CFR 60.48c for a period of 2 years following the date of such record. Subpart Dc. [40 CFR 60.48c(i)]

**EQT003 6-78 - Boiler "C" Flue Gas (40 MM Btu/hr)**

- 27 Opacity  $\leq$  20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1101.B]  
Which Months: All Year Statistical Basis: None specified
- 28 Total suspended particulate  $\leq$  0.6 lb/MMBTU of heat input. [LAC 33:III.1313.C]  
Which Months: All Year Statistical Basis: None specified
- 29 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]
- 30 When burning fuel oil during the ozone season (May 1 - September 30), heat input  $<$  40 MM BTU/hr. Ensure compliance with this requirement by limiting the feed rate of fuel oil to less than 282 gal/hr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if fuel oil feed rate exceeds the maximum listed in this specific condition. [LAC 33:III.501.C.6]  
Which Months: May-Sep Statistical Basis: Maximum
- 31 Fuel oil Operating time  $\leq$  500 hr/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if fuel oil operating time exceeds the maximum listed in this specific condition for any twelve consecutive month period. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: None specified
- 32 During the ozone season, fuel oil Feed rate (surrogate for heat input) monitored by technically sound method continuously. [LAC 33:III.501.C.6]  
Which Months: May-Sep Statistical Basis: None specified

**SPECIFIC REQUIREMENTS**

AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility

Activity Number: PER20060004

Permit Number: 1280-00011-03

Air - Minor Source/Small Source Mod

**EQT003** 6-78 - Boiler "C" Flue Gas (40 MM Btu/hr)

- 33 Fuel Oil Operating time recordkeeping by electronic or hard copy monthly. Keep records of the total hours the boiler burns fuel oil each month, as well as the hours the boiler burns fuel oil for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]
- 34 Submit report: Due annually, by the 31st of March. Report the hours of fuel oil usage and the hourly feed rate of fuel oil (during the ozone season) for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]
- 35 During the ozone season, fuel oil Feed rate recordkeeping by electronic or hard copy continuously. Keep records of the fuel oil feed rate hourly, as well as the hourly feed rate of fuel oil during the entire ozone season. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]
- 36 Fuel oil Operating time monitored by technically sound method continuously. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: None specified

**EQT004** 8-78 - Sodium Chloride Handling

- 37 Prevent particulate matter from becoming airborne by taking all reasonable precautions. These precautions shall include, but not be limited to, those specified in LAC 33:III.1305.A.1-7. [LAC 33:III.1305]
- 38 Total suspended particulate  $\leq$  60.96 lb/hr. The rate of emission shall be the total of all emission points from the source. [LAC 33:III.1311.B]  
Which Months: All Year Statistical Basis: None specified
- 39 Opacity  $\leq$  20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]  
Which Months: All Year Statistical Basis: Six-minute average
- 40 Salt Usage: Throughput  $\leq$  350,000 tons/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if throughput exceeds the maximum listed in this specific condition for any twelve consecutive month period. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: None specified
- 41 Salt usage: Throughput monitored by technically sound method during loading. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: None specified
- 42 Salt usage: Throughput recordkeeping by electronic or hard copy monthly. Keep records of the total salt loaded each month, as well as the total loaded for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]
- 43 Submit report: Due annually, by the 31st of March. Report the salt usage for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]

**EQT006** 12-95 - "B" Scrubber Vent Gas

- 44 pH monitored by pH instrument once every four hours. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: None specified
- 45 pH recordkeeping by electronic or hard copy once every four hours. [LAC 33:III.501.C.6]
- 46 Flow rate monitored by flow rate monitoring device once every four hours. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: None specified
- 47 Flow rate recordkeeping by electronic or hard copy once every four hours. [LAC 33:III.501.C.6]
- 48 Submit report: Due annually, by the 31st of March for the preceding calendar year. List the hours that the scrubber operated out of the ranges specified. Submit report to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]
- 49 Flow rate  $\geq$  500 gallons/min. [LAC 33:III.501.C.6]  
Which Months: All Year Statistical Basis: None specified

**SPECIFIC REQUIREMENTS**

AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility

Activity Number: PER20060004

Permit Number: 1280-00011-03

Air - Minor Source/Small Source Mod

**EQT006 12-95 - "B" Scrubber Vent Gas**

50 pH >= 10.5 s.u. [LAC 33:III.501.C.6]

Which Months: All Year Statistical Basis: None specified

**EQT012 E-183 - Emergency Generator Diesel Engine**

51 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]

Which Months: All Year Statistical Basis: Six-minute average

52 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

**EQT013 E-740B - Stormwater Lagoon Pump Engine**

53 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]

Which Months: All Year Statistical Basis: Six-minute average

54 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

**EQT014 E-805C - Well Water Diesel Pump Engine**

55 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]

Which Months: All Year Statistical Basis: Six-minute average

56 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

**EQT015 E-814 - Firewater Diesel Pump Engine**

57 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes. [LAC 33:III.1311.C]

Which Months: All Year Statistical Basis: Six-minute average

58 Equipment/operational data recordkeeping by electronic or hard copy continuously. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request. [LAC 33:III.1513]

**EQT017 T-810 - Gasoline Tank at Garage**

59 Equip with a submerged fill pipe. [LAC 33:III.2103.A]

**SPECIFIC REQUIREMENTS**

**AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility**  
**Activity Number: PER20060004**  
**Permit Number: 1280-00011-03**  
**Air - Minor Source/Small Source Mod**

**EQT017**      **T-810 - Gasoline Tank at Garage**

- 60 Determine VOC maximum true vapor pressure using the methods in LAC 33:III.2103.H.3.a-e. [LAC 33:III.2103.H.3]
- 61 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in LAC 33:III.2103.I.1.7, as applicable. [LAC 33:III.2103.J]

**FUG001**      **FRP FAB - Maint Activity-FRP Fabrication and Repair**

- 62 Resin Usage <= 4000 lb/yr. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if resin usage exceeds the maximum listed in this specific condition for any twelve consecutive month period. [LAC 33:III.501.C.6]
- 63 Resin usage monitored by technically sound method continuously. [LAC 33:III.501.C.6]
- 64 Resin usage recordkeeping by electronic or hard copy monthly. Keep records of the total resin usage each month, as well as the total resin usage for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]
- 65 Preparation and Cleanup: Usage of Methyl ethyl ketone and Styrene monitored by technically sound method continuously. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: None specified
- 66 Preparation and cleanup: Usage of Methyl ethyl ketone and Styrene recordkeeping by electronic or hard copy monthly. Keep records of the total MEK and Styrene usage each month, as well as the total MEK and Styrene usage for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]

**GRP002**      **Entire Facility**

- 67 Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.111 or intensify an existing traffic hazard condition are prohibited. [LAC 33:III.1103]
- 68 Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited. [LAC 33:III.1303.B]
- 69 Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5. [LAC 33:III.2113.A]
- 70 Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance. [LAC 33:III.219]
- 71 Discharges of odorous substances at or beyond property lines which cause a perceived odor intensity of six or greater on the specified eight point butanol scale as determined by Method 41 of LAC 33:III.2901.G are prohibited. [LAC 33:III.2901.D]
- 72 If requested to monitor for odor intensity, take and transport samples in a manner which minimizes alteration of the samples either by contamination or loss of material. Evaluate all samples as soon after collection as possible in accordance with the procedures set forth in LAC 33:III.2901.G. [LAC 33:III.2901.F]
- 73 Maintain best practical housekeeping and maintenance practices at the highest possible standards to control emissions of highly reactive volatile organic compounds (HRVOC), which include 1,3-Butadiene, Butene, cis-2-Butene, trans-2-Butene, Ethylene, Propylene, Toluene, Xylene, m/p-Xylene, o-Xylene. (State Only). [LAC 33:III.501.C.6]
- 74 Maintain, to the extent practicable, a leak-free facility taking such steps as are necessary and reasonable to prevent leaks and to expeditiously repair leaks that occur. Update the written plan presently required by LAC 33:III.2113.A.4 within 30 days of receipt of this permit to incorporate these general duty obligations into the housekeeping procedures. The plan shall then be considered a means of emission control subject to the required use and maintenance provisions of LAC 33:III.905. Failure to develop, use, and diligently maintain the plan shall be a violation of this permit. (State Only). [LAC 33:III.501.C.6]
- 75 Carbon monoxide <= 3.47 tons/yr. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: Annual maximum

**SPECIFIC REQUIREMENTS**

**AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility**  
**Activity Number: PER20060004**  
**Permit Number: 1280-00011-03**  
**Air - Minor Source/Small Source Mod**

**GRP002      Entire Facility**

- 76 Nitrogen oxides <= 42.71 tons/yr. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: Annual maximum
- 77 Particulate matter (10 microns or less) <= 49.03 tons/yr. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: Annual maximum
- 78 Sulfur dioxide <= 11.02 tons/yr. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: Annual maximum
- 79 VOC, Total <= 4.35 tons/yr. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: Annual maximum
- 80 Methyl ethyl ketone <= 1.47 tons/yr. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: Annual maximum
- 81 Styrene <= 0.52 tons/yr. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: Annual maximum
- 82 Chlorine <= 0.53 tons/yr. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: Annual maximum
- 83 Mercury (and compounds) <= 0.612 tons/yr. [LAC 33:III.501.C.6]  
 Which Months: All Year    Statistical Basis: Annual maximum
- 84 Activate the preplanned abatement strategy listed in LAC 33:III.5611. Table 5 when the administrative authority declares an Air Pollution Alert. [LAC 33:III.5609.A.1.b]
- 85 Activate the preplanned strategy listed in LAC 33:III.5611. Table 6 when the administrative authority declares an Air Pollution Warning. [LAC 33:III.5609.A.2.b]
- 86 Activate the preplanned abatement strategy listed in LAC 33:III.5611. Table 7 when the administrative authority declares an Air Pollution Emergency. [LAC 33:III.5609.A.3.b]
- 87 Prepare standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency. Design standby plans to reduce or eliminate emissions in accordance with the objectives as set forth in LAC 33:III.5611. Tables 5, 6, and 7. [LAC 33:III.5609.A]
- 88 Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.5901. [LAC 33:III.5901.A]
- 89 Identify hazards that may result from accidental releases of the substances listed in 40 CFR 68.130, Table 59.0 of LAC 33:III.5907, or Table 59.1 of LAC 33:III.5913 using appropriate hazard assessment techniques, design and maintain a safe facility, and minimize the off-site consequences of accidental releases of such substances that do occur. [LAC 33:III.5907]
- 90 Submit registration: Due January 31, 1998, or within 60 days after the source becomes subject to LAC 33:III. Chapter 59, whichever is later. Include the information listed in LAC 33:III.5911.B, and submit to the Department of Environmental Quality, Office of Environmental Compliance, Emergency and Radiological Services Division. [LAC 33:III.5911.A]
- 91 Submit amended registration: Due to the Department of Environmental Quality, Office of Environmental Compliance, Emergency and Radiological Services Division, within 60 days after the information in the submitted registration is no longer accurate. [LAC 33:III.5911.C]
- 92 Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year unless otherwise directed. Submit emission inventory data in the format specified by the Office of Environmental Assessment, Air Quality Assessment Division. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D. [LAC 33:III.919.D]
- 93 All affected facilities shall comply with all applicable provisions in 40 CFR 60 Subpart A. [40 CFR 60]
- 94 Comply with all applicable requirements of 40 CFR 63 Subpart IIIII. [40 CFR 63.8180]
- 95 All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart A as delineated in Table 10 of 40 CFR 63 Subpart IIIII. [40 CFR 63]

**RLP005      1-78 - Outlet Endbox Vent**

**SPECIFIC REQUIREMENTS**

AI ID: 2644 - Pioneer Americas LLC - St Gabriel Facility  
 Activity Number: PER20060004  
 Permit Number: 1280-00011-03  
 Air - Minor Source/Small Source Mod

**RLP005 1-78 - Outlet Endbox Vent**

- 96 Utilize a monitoring system approved by the Environmental Technology Division, Engineering Services. [LAC 33:III.501.C.6]
- 97 Cease using equipment when breakthrough occurs and do not resume use until the carbon adsorption unit has been regenerated or replaced. [LAC 33:III.501.C.6]
- 98 Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of breakthrough. Keep records of the number of breakthroughs on site and available for inspection by the Office of Environmental Compliance, Surveillance Division. [LAC 33:III.501.C.6]
- 99 Submit report: Due annually, by the 31st of March. Submit the number of breakthroughs for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]
- 100 Control mercury emissions using activated carbon adsorption units. The vendor guarantee shall equate to a mercury emission concentration of no more than 5 ppb by volume. [LAC 33:III.501.C.6]

**RLP006 2-78 - Hydrogen Processing Equipment Vent**

- 101 Utilize a monitoring system approved by the Environmental Technology Division, Engineering Services. [LAC 33:III.501.C.6]
- 102 Cease using equipment when breakthrough occurs and do not resume use until the carbon adsorption unit has been regenerated or replaced. [LAC 33:III.501.C.6]
- 103 Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of breakthrough. Keep records of the number of breakthroughs on site and available for inspection by the Office of Environmental Compliance, Surveillance Division. [LAC 33:III.501.C.6]
- 104 Submit report: Due annually, by the 31st of March. Submit the number of breakthroughs for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]
- 105 Control mercury emissions using activated carbon adsorption units. The vendor guarantee shall equate to a mercury emission concentration of no more than 5 ppb by volume. [LAC 33:III.501.C.6]

**RLP009 H2 PURIF - Hydrogen Purification System**

- 106 Number of depressurization events  $\leq$  930 per year. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if the number of events exceeds the maximum listed in this specific condition for any twelve consecutive month period. [LAC 33:III.501.C.6]
- 107 Number of depressurization events monitored by technically sound method continuously. [LAC 33:III.501.C.6]
- 108 Depressurization events recordkeeping by electronic or hard copy monthly. Keep records of the total number of depressurization events each month, as well as the total number of depressurization events for the last twelve months. Make records available for inspection by DEQ personnel. [LAC 33:III.501.C.6]
- 109 Submit report: Due annually, by the 31st of March. Report the number of depressurization events for the preceding calendar year to the Office of Environmental Compliance, Enforcement Division. [LAC 33:III.501.C.6]